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INTRODUCTION

Gastric cancer affects 1 million people per year. It is the 5th most diagnosed and 3rd most lethal cancer worldwide. It is most common after age 50 and it affects men twice as much as women. Symptoms are non-specific including dyspepsia, early satiety, abdominal pain, and weight loss, and usually manifest with advanced disease. Metastatic gastric cancer to the ovaries (Krukenberg tumor) is rare, and even less frequent in pregnancy. We present a case of a 30-year-old pregnant woman with metastatic gastric adenocarcinoma and Krukenberg tumor.

CASE DESCRIPTION

A 30-year-old, 16-week pregnant woman presented with a 3-week history of lower back pain. Patient denied nausea, vomiting, abdominal pain, and weight loss. Initial workup revealed severe pancytopenia and hypercalcemia. Imaging studies were initially declined to avoid affecting the fetus. For this reason and due to worsening thrombocytopenia, a bone marrow biopsy was performed and showed metastatic adenocarcinoma of mucinous origin positive for CK7 and weakly positive for CDX2, favoring an intraluminal GI source. MRI of chest, abdomen, and pelvis revealed multiple metastatic bone lesions, including the right hip, and a left adnexal nodule, but failed to find the primary source. Upper endoscopy showed diffuse nodular-appearing mucosa, suspicious for linitis plastica (image 1). Pathology revealed poorly-

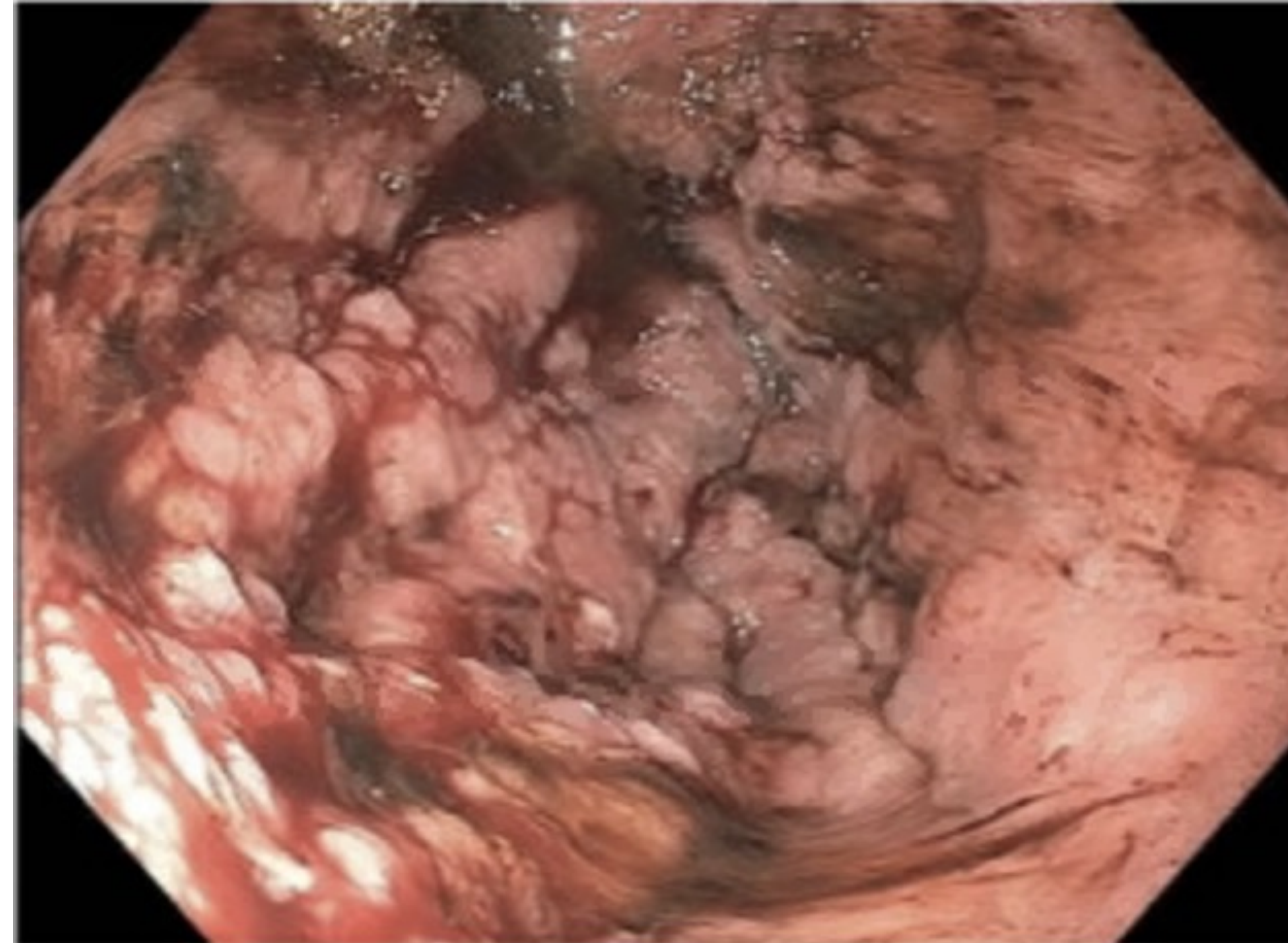


Image 1. Upper endoscopy showing diffuse nodular-appearing mucosa, suspicious for linitis plastica.

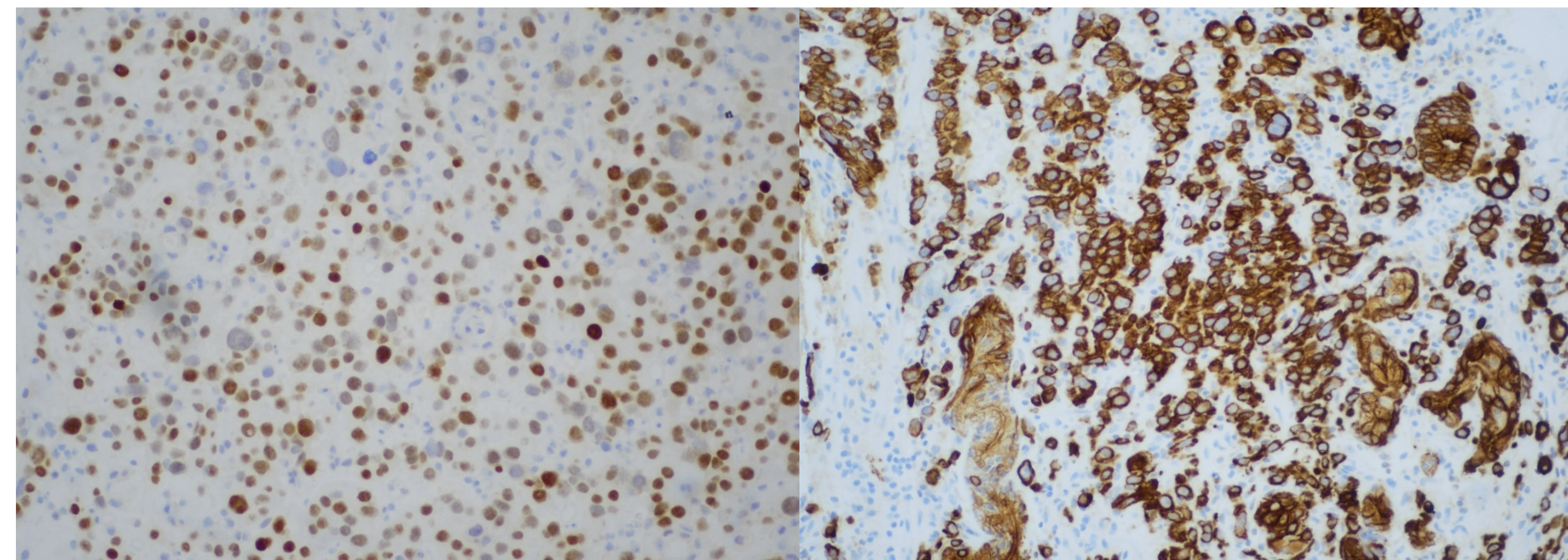


Image 2. Pathology showing poorly-differentiated adenocarcinoma positive for CDX2 (left) and pan-cytokeratin (right).

CASE CONTINUED

differentiated adenocarcinoma positive for CDX2, villin, CK7 and pan-cytokeratin (image 2), and negative for CK20. Patient underwent diagnostic laparoscopy with left oophorectomy and pathology showed metastatic, poorly-differentiated carcinoma with gastric primary origin, consistent with Krukenberg tumor. She received palliative chemotherapy and continued with pregnancy. Unfortunately, patient relocated to a different city after 5 cycles of chemotherapy and was lost to follow up.

DISCUSSION

Gastric cancer affects most commonly older men. Its occurrence in women of reproductive age is uncommon and diagnosis during pregnancy is extremely rare. In such cases, presentation can be mistaken for common pregnancy-related symptoms, delaying diagnosis. This presentation raises both diagnostic and medical management issues. In our case, patient did not have any gastrointestinal symptoms, which made the diagnosis even more challenging. Her advanced disease also presented with metastasis to the left ovary, known as Krukenberg tumor which is a rare condition by itself with only a handful cases reported in pregnant women. Due to its very low incidence, there are no specific guidelines to treat these patients with such a complex disease and most of them receive standard chemotherapy with low probability of survival.

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References

1. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2018;68(6):394-424. doi:10.3322/caac.21492
2. Smyth EC, Nilsson M, Grabsch HI, van Grieken NC, Lordick F. Gastric cancer. *The Lancet.* 2020;396(10251):635-648. doi:10.1016/S0140-6736(20)31288-5
3. Hussain N, Selvakumari N, Afadapa F, Amu O. Pregnancy and gastric cancer: diagnostic and treatment dilemma. *BMJ Case Rep.* Published online June 23, 2018;bcr-2017-222963. doi:10.1136/bcr-2017-222963
4. Zhang J, Peng P, Cao D, Yang J, Shen K. Clinicopathological features and maternal and foetal management of pregnancy-complicating Krukenberg tumours. *Mol Clin Oncol.* Published online March 30, 2020. doi:10.3892/mco.2020.2025
5. Goidescu IG, Nemeti G, Preda A, et al. Krukenberg tumor in pregnancy: a rare case and review of the literature. *J Matern Fetal Neonatal Med.* Published online September 1, 2021;1-6. doi:10.1080/14767058.2021.1946788
6. Mendoza-Rosado F, Nunez-Isaac O, Espinosa-Marrón A, Lopez-Arjona K, Davila-Martinez F. Krukenberg tumor as an incidental finding in a full-term pregnancy: a case report. *J Med Case Reports.* 2021;15(1):304. doi:10.1186/s13256-021-02875-6